Inspection Report Submittal

Facility Name: **PEPCO Benning Road Generating Station**

Site Address(s): **3400 Benning Road, NE**
Washington, DC 20019

Inspection Type: **NPDES Compliance Evaluation Inspection**

NPDES Permit #: **DC0000094**

Inspector/Writer: **Charles Hufnagel** **410-305-2775**

Inspection Report Date (Final): MAR 0 2 2012

Memorandum **Confidential, Attorney-Client Privilege** 2/29/12

To: Samantha Beers, Director, OECEJ (3EC00)
Michelle Price-Fay, Chief, NPDES Branch (3WP31)

From: Charles Hufnagel, Environmental Engineer, OECEJ-FIP (3EC10) CH

Re: PEPCO Benning Road Generating Station
NPDES DC0000094 Compliance Evaluation Inspection Summary of Findings

Summary of Findings:

Their NPDES Permit (No. DC0000094) refers to the subject PEPCO site as "Benning Generating Station" and permits it to discharge process water and storm water to the Anacostia River. PEPCO owns the site (property, buildings, etc.) although North American Energy Services (NAES) operates and maintains the generating station (power plant) for PEPCO.

Findings/*Followup*

- Industrial spill - Water from the cooling towers splashed onto the ground and flowed into storm water inlets./ *PEPCO/NAES had reportedly* (see **Attachment 2**) *repaired leaks, installed wooden splash guards and angled boards as well as adjusted louvers to contain and redirect splashing cooling water into the cooling tower's basin.*
- Improper/Incorrect Reporting - Rainfall data associated with storm water sampling @ Outfall 013 had not been included with the DMRs (Part II. A. 1., 2. & 3.)./ *PEPCO/NAES did, however, have this rainfall data readily available in their files and provided it to the inspectors during their records review* (see **Attachment 3**). *This data included the omitted DMR data that had been required since their permit reissuance (6/19/09) to date of the subject CEI (7/28/11). PEPCO/NAES indicated that they would now report this data with their DMRs.*

NOTE: PEPCO/NAES representatives indicated to the EPA/DDOE inspectors that the "Benning Generating Station" would be permanently decommissioned (shutdown) in May 2012.

United States Environmental Protection Agency
Washington, D.C. 20460

Water Compliance Inspection Report

Section A: National Data System Coding (i.e. PCS)

Transaction Code	NPDES	yr/mo/day	Inspection Type	Inspector	Fac Type
1 N	2 5 3 DC0000094 11	12 11/07/28 17	18 C	19 J	20 2

Remarks

21 66

Inspection Work Days	Facility Self-Monitoring Evaluation Rating	B1	QA	Reserved
67 69	70	71	72	73 74 75 80

Section B: Facility Data

Name and Location of Facility Inspected *(For industrial users discharging to POTW, also include POTW name and NPDES permit number)*	Entry Time/Date	Permit Effective Date
Potomac Electric Power Company, Inc. Benning Generating Station 3400 Benning Road, NE Washington, DC 20019	9:00 AM July 28, 2011	06/19/2009
	Exit Time/Date	**Permit Expiration Date**
	6:00 PM, July 28, 2011	06/18/2014

Name(s) of On-Site Representative(s)/Title(s)/Phone and Fax Number(s)	Other Facility Data (e.g., ISC NAICS, and other descriptive information)
1.Fariba Mahvi, Lead Environmental Engineer (PEPCO Holdings, Inc), 202-331-6641 2. Heather Brinerhoff, EHS Manager (NAES), 202-388-2534 3. Mike Barge, Plant Manager (NAES), 202-388-2513 4. Mike Williams, Assistant Plant Manager (PEPCO Energy Services), 202-388-2534 5.Aleta Finney, Senior Environmental Scientist (PEPCO Holdings, Inc), 202-388-2781 6. Larry Merkel, Underground Conduit Lead Technician (PEPCO Holdings, Inc) 7. Steve Ortel Lab Manager, (PEPCO Holdings, Inc.)	
Name, Address of Responsible Official/Title/Phone and Fax Number Stephen Wisniewski, Vice President Operations 701 Ninth Street, NE, Washington, DC 20068	Contacted __Yes X No

Section C: Areas Evaluated During Inspection (Check only those areas evaluated)

X Permit	X Self-Monitoring Program	__ Pretreatment	__ MS4
X Records/Reports	X Compliance Schedules	__ Pollution Prevention	
__ Facility Site Review	X Laboratory	X Storm Water	
__ Effluent/Receiving Waters	X Operations & Maintenance	__ Combined Sewer Overflow	
X Flow Measurement	__ Sludge Handling/Disposal	__ Sanitary Sewer Overflow	

Section D: Summary of Findings/Comments

(Attach additional sheets of narrative and checklists, including Single Event Violation codes, as necessary)

SEV Codes	SEV Description
A0023	Industrial Spill - water from the cooling towers splashed onto the ground and ran off into onsite stormwater inlet and apparently had previously flowed offsite into a nearby city MS4 stormwater inlet.
E0013	Improper/Incorrect Reporting - have not been including rainfall data associated with stormwater sampling on DMRs.

Name(s) and Signature(s) of Inspector(s)	Agency/Office/Phone and Fax Numbers	Date
Charles Hufnagel	EPA/OECEJ-FIP/410-305-2775 fax410-305- 3093	July 28,2011
Adion Chinkuyu	District Department of the Environment /Water Quality Division/202-535-2193	July 28,2011
Signature of Management Q A Reviewer	Agency/Office/Phone and Fax Numbers	Date

Comments

Water Compliance Evaluation Inspection
Potomac Electric Power Company, Inc.
Benning Road Generating Station
NPDES Permit No. DC0000094
Inspection Narrative

1. Introduction

On July 28, 2011, a National Discharge Elimination System (NPDES) Water Compliance Evaluation Inspection (CEI) was conducted to evaluate the wastewater monitoring practices of Potomac Electric Power Company, Inc., Benning Road Generating Station, 3400 Benning Road, NE, Washington, D.C. 20019 (PEPCO). EPA-OECEJ-FIP inspector, Charles Hufnagel and the District Department of the Environment (DDOE) inspector, Adion Chinkuyu reviewed records, interviewed personnel, conducted an inspection tour of the facility, and completed an EPA Form 3560-3 (Water Compliance Inspection Report = **Attachment 1**).

The following facility representatives participated in the inspection: Fariba Mahvi, Lead Environmental Engineer (PEPCO Holdings, Inc); Mike Barge, Plant Manager (NAES); Heather Brinerhoff, EHS Manager (NAES); Aleta Finney, Senior Environmental Scientist (PEPCO Holdings, Inc); Mike Williams, Power Plant Assistant Manager, (PEPCO Energy Services, Inc.); Larry Merkel, Underground Conduit Lead Technician (PEPCO Holdings, Inc); and Steve Ortel, Lab Manager, (PEPCO Holdings, Inc.). Inspectors' credentials were presented to facility personnel, upon entry.

The weather was sunny and dry with temperature of about 85°F.

2. Facility and Permit Background

PEPCO which is referred to in NPDES Permit No. DC0000094 as "Benning Generating Station" is located on approximately 77 acres of land, and contributes storm water and process water to the discharges authorized by the Permit. The facility consists of a generating station, a 230 kV switchyard, a 69 kV switchyard, fleet services, office and security services, transmission and distribution shops, transformer repair and testing shop, storage buildings, several parking areas, a hazardous waste/PCB handling storage facility, hazardous waste accumulation trailer, asbestos trailer, subsidiary and contractor facilities, and various outdoor storage areas. The generating station is owned by Potomac Power Resources (PPR) [a wholly owned subsidiary of PEPCO Energy Services (PES)]. North American Energy Services (NAES) operates and maintains the Benning Road Generating Station for PEPCO.

The generating station comprises of two fuel oil-based steam generators each with a rated output of 275 megawatts (used mainly during peak winter and summer seasons when electricity demand is high). There are also two fuel oil-based package boilers for auxiliary and building services. The generation station uses No. 2 fuel oil for start-up, then switches to No. 4 fuel oil for sustained operation. Approximately 4.2 million gallons of fuel is stored on-site. The facility was in operation during the time of inspection. The facility maintains a Spill Prevention, Control, and Countermeasure (SPCC) plan.

PEPCO's NPDES Permit (DC0000094) was issued on June 19, 2009 and will expire on June 18, 2014. The permit authorizes discharge of both process water (cooling water blow down and cooling tower basin wash water) and storm water runoff. Each of these waste streams is described in the permit.

3. Record and Reports

Discharge Monitoring Reports (DMRs) and the facility's Stormwater Pollution Prevention Plan were reviewed as part of the inspection. Specifically, DMRs from April 2010 to June 2011 were reviewed along with all the supporting lab analysis and flow data used to generate the reports. The DMR and supporting data appeared to be adequate. Spot check for completeness and accuracy identified no discrepancies except for omission of the rainfall related data required to be reported as per Part II. Storm Water Management: A. Recording of Results (Page 13) of the permit. However, this data which was on file was made readily available to the inspectors at this time.

The 2010 CEI report noted that there had been a misprint in the permit's Part I. B. Effluent Limitations and Monitoring Requirements- Storm Water Discharges. Ms. Mahvi indicated that EPA had corrected it (by changing the Iron concentration units at Outfall 013 from $\mu g/L$ to mg/L) although the DMRs had not yet made this correction.

It was also noted in the 2010 CEI report that the facility had developed and implemented a Storm Water Pollution Prevention Plan (SWPPP) in accordance with the permit's Part II. Storm Water Management C. (Page 13). The facility's SWPPP is combined with the Spill Prevention, Control, and Countermeasure (SPCC) plan into a document called Integrated Contingency Plan (ICP), which is updated annually. The facility is currently revising the ICP. The inspectors reviewed the 2010 ICP as part of this inspection and it was found to have been signed by the responsible corporate officials.

The facility's two in-house (onsite) laboratories, NAES and PEPCO, are used to monitor (measure) effluent samples for parameters such as residual chlorine and pH. Samples for other analytes are shipped off-site to Microbac Laboratories, Inc. in Baltimore for analysis. A review of each lab's calibration log books indicated that each lab uses a 3-point procedure to calibrate its pH meters every month. The pH buffer solutions used in the calibration were all current at the time of this inspection.

4. Permit Verification

PEPCO's NPDES Permit (DC0000094) was issued to the facility on June 19, 2009 and will expire on June 18, 2014. The facility is as described in the permit. The permit has monitoring and effluent limit requirements at its outfalls or monitoring points. All known discharges from the facility are permitted.

5. Operation and Maintenance

(a) Wastewater

The facility has two oil-water separator treatment systems:

(i) oil-water separation/settling system at Outfall 201, which was designed to remove oil and grease from utility wastewater and a No. 2 oil loading area. Monitoring point 201 is the discharge point from this oil-water separator. Due to structural reasons, a portable oil-water separator had temporarily replaced the existing oil-water separator at the time of the 2010 CEI inspection. The facility has since installed a new oil-water separator system, which is now operational and in-service at this time. ***Photos 35-44.***

(ii) oil-water separation/settling/filtration system at Outfall 003, which is a treatment system designed to remove oil, grease and solids from water that is removed from utility manholes throughout PEPCO's service area. The treatment system operates in batch mode and consists of an oil-water separator, storage and settling tanks followed by a two staged filter system of cloth and charcoal media. The treated effluent is held in an underground tank from where it is pumped as a batch through Outfall 003 to the Outfall 013 pipeline. If necessary, pH is adjusted before discharging. At the time of the inspection, the treatment system was not discharging to Outfall 003. One of PEPCO's pump/tank trailers used to collect the water from the utility manholes was parked adjacent to this treatment site and is included in the ***Photos (55-79).***

(b) Stormwater

Storm water runoff from the facility is conveyed through a drainage system and is discharged to the Anacostia River and city storm sewers at various outfalls. Most of the stormwater runoff from the PEPCO's service center area is conveyed through a 36-inch to 54-inch storm drainpipe to the Anacostia River via Outfall 013. However, the monitoring/sampling location for Outfall 013 is located near the property boundary in the NAES power plant area, roughly 500 ft from its actual discharge point (end of 54" outfall pipe). ***Photos 28-31.***

The NPDES Permit (Number DC0000094) also authorizes the facility to discharge stormwater from Outfall 101 whose drainage area is the transformer area on the west side of the power generating building (power plant). Manhole K, the original monitoring/sampling location for Outfall 101 has been eliminated as such as tidal problems from the river often made representative sampling difficult. In accordance with the reissued permit's compliance schedule, the facility has developed an alternative to the Manhole K location. ***Photos 1-25.***

The facility has housekeeping procedures and best management practices (BMPs) that are in place to prevent release of pollutants to the environment. These include: adequate dikes and secondary containment; spill containment and clean-up; oil absorbent booms/filter cloth at inlets/drains. **E.g.** ***Photos 7, 8, 28-34.***

Stormwater monthly inspections are conducted by NAES staff for the generating station (power plant) area and PEPCO staff for the remainder of the facility site. Both PEPCO and NAES use the same reporting format, which is in the form of a checklist. The forms are signed by their respective inspectors, reviewed and initialed by their managers. The PEPCO and NAES reports currently appear to meet the intent of EPA's Multisector General Stormwater Permit.

6. Compliance Schedules

Part VII. Special Conditions H. Manhole K. of the permit required the facility to submit for comment to EPA and DDOE, a plan (with an implementation schedule) to retrofit Manhole K (***Photos 1, 2, 3***) into a reliable monitoring point for storm water discharging from Outfall 101. The goal was to ensure that the manhole is not affected by high tides. According to the facility representatives, Manhole K sampling will consist of compositing grab samples from 7 upstream storm drains on the west side of the power plant (***Photos 4-25***) that discharge to Manhole K. Sampling pans, inserted in each drain, will collect the grab samples that are to be composited. PEPCO has contracted *Mac Tec,* their environmental consulting engineers, to actually conduct the sampling. At the time of the subject CEI, the pans were in place and *Mac Tec* was on call for the initial sampling, pending, only, a qualifying storm.

7. Self Monitoring Program

Flow measuring device (in-line totalizer water-type flow meter) at Outfall 003 (***Photos 72, 73***). seemed to be working properly and does not need calibration, according to the facility representatives. Similarly, the same type of flow measuring device is in the discharge line from the Outfall 201 treatment unit's influent pumps (***Photo 44, inside shed***).

The overall flow from Outfall 013 is estimated from the summation of the process water/wastewater flow at the outfalls and stormwater runoff calculated using rainfall data and runoff coefficients for the various sections of the facility. This approach appears to be consistent with Part I B. Effluent Limitations and Monitoring Requirements- Storm Water Discharges of the permit.

The facility representatives indicated that, based on recommendations of the 2008 inspection, they continue to sample for oil and grease directly by using a glass bottle, inserted in a plastic sample holder which is tied to a stainless steel rod. pH and chlorine residual samples are collected and analyzed within 15 minutes and documented in their respective lab's log books; sample temperatures are also documented on chain of custody forms. NAES's monthly stormwater inspection records are essentially the same as PEPCO's. The facility's self monitoring program seemed to be in compliance with the permit requirements.

As noted above, the facility includes 2 onsite laboratories:

- NAES lab, located in the power plant, is used by NAES personnel to analyze the facility's NPDES permit effluent samples for residual chlorine and pH. They also collect TSS, Oil & Grease, PCB and Metals samples which they preserve, as necessary, and refrigerate before shipment to Microbac Laboratories, Inc. in Baltimore for analysis. Microbac, also, picks up the samples which are shipped in iced coolers. NAES personnel monitor Outfalls 013, 201,

202, 203. As noted earlier, PEPCO has contracted *Mac Tec* to monitor Outfall 101 (Manhole K) during storm events.

- PEPCO lab, located on the eastern side of the site where PEPCO's electrical services (shops, etc.) are based, essentially serves PEPCO's electric utility operations but also supports the PEPCO personnel's self-monitoring obligations regarding the facility's NPDES permit. Specifically, at Outfall 003, PEPCO personnel collect and analyze pH samples as well as collect TSS, Oil & Grease and PCB samples and similarly preparing them (as noted above for NAES) for pickup and analysis by Microbac (***Photo 80).***

  Each lab's calibration log book indicated that each lab uses the 3-point procedure to calibrate their respective pH meters for each of the monthly samples. Also, their respective pH buffer solutions (7, 4, 10) used in their calibrations were all current (unexpired) at the time of this inspection.

The Microbac lab was not included as part of the subject inspection.

8. Effluent and Receiving Waters

The facility's permitted discharges consist of: non-contact cooling water; cooling tower blow down; treated wastewater (by oil/water separator, settling and filters) effluent; cooling tower basin wash water; cooling water from boiler feed pumps; demineralization; regeneration wastes; groundwater infiltration sump water; fireside washing; miscellaneous cleaning waste, water for hydrostatic tank testing; and stormwater. A majority of these flows are discharged to the Anacostia River (wetlands) via Outfall 013 (***Photos 81-87***).

NAES staff samples and conducts self-monitoring activities at Outfalls 201, 202, 203, and 013 while PEPCO staff samples Outfall 003. Effluent samples for Outfall 013 are collected at a manhole (***Photos 28-31***) roughly five hundred feet upgradient from the end of the discharge pipe. Samples for Outfalls 003 and 201 (oil-water separators) are collected at the end of their respective treatment system's discharge pipe before entering Outfall 013. Samples for Outfalls 202 and 203 are collected from the cooling tower sumps (***Photos 44-51***).

The following outfalls are listed in the Permit, some are internal and some have monitoring requirements with discharge limits.

Outfall	Description	Monitoring	Limits
003[1]	Internal, oil-water separator	X	X
013[2]	Discharge to Anacostia River	X	X
101[3]	Stormwater, Discharges to Anacostia River	X	
201[4]	Internal, wastewater from oil-water separator, reverse osmosis regenerate, boiler blow down	X	X
202[5]	Internal, cooling tower blow down	X	X
203[5]	Internal, cooling tower blow down	X	X

Notes:

1. Monitoring point 003 is the discharge point from a treatment system designed to remove oil, grease and solids from water removed from utility manholes and transported to the facility. The treatment system operates in batch mode and consists of an oil-water separator, settling tank followed by a two staged filter system of cloth and charcoal media
2. Monitoring point 013 has two sets of monitoring requirements and effluent limits. These requirements vary depending on whether or not, there is a discharge of cooling tower blow down. See Part I.B and Part VII of the permit.
3. Monitoring point 101 is manhole K for monitoring stormwater from the transformer area on the west side of the power plant. As required by the reissued permit, the facility has modified their sampling method due to tidal interference within manhole K as noted above (See **6. Compliance Schedules**). The outfall discharges to the Anacostia River (**Photo 10**).
4. Monitoring point 201 is the discharge point for the treated wastewater coming out of the new oil-water separator which was put in service on 3/31/11.
5. Monitoring points 202 and 203 have two sets of monitoring requirements and effluent limits. These requirements vary depending on whether or not, there is a discharge of cooling tower blow down (Part I.D.) or cooling tower wash water (Part I.E). According to Ms. Brinkerhoff EHS Manager (NAES), only the cooling tower blow down is discharged to the river. Cooling tower wash water has only been generated twice in the past 5 years essentially before inspecting the cooling towers. At any rate, it is pumped to a tanker truck and hauled for treatment as hazardous wastewater.

Outfalls

(a) Outfall 003

Outfall 003 is an internal outfall that discharges batch flow (pumped) from the treated water holding tank to the manhole of the 48" section of the main pipeline, which ultimately becomes the 54" main pipeline discharging as Outfall 013. Outfall 003's discharge is measured by an in-line (totalizer) flow meter in the effluent discharge line (***Photos 72-73)*** and sampled from the underground effluent holding tank during discharge (***Photos 76-79***). The outfall was not discharging at the time of inspection. The treatment system (oil/water separator/settling tank/filters) was operable at the time of inspection, but off-line for discharge. ***Photos 55-79.***

(b) Outfall 201

Outfall 201 is a major internal monitoring and discharge point for the facility's industrial wastewater. A duplex pump system (each rated @ 500 gpm) intermittently pumps the wastewater from the various power plant related processes through an in-line totalizer flow meter to the new oil/water separator that has been in operation since 3/31/11. According to the facility reps, the system has a surge valve which would bypass treatment and flow directly to Outfall 201 if ever activated. They pointed out that it is kept in a locked position and no one could recall any bypass incidents, at least in recent years.

Outfall 201 discharges into a manhole mounted on a 48" section of the Outfall 013 pipeline. Here, it mixes with any stormwater and other process wastewater (i.e. 003) from upgradient as well as any ensuing down gradient stormwater and wastewater (i.e. 202 & 203) that could be entering this main pipeline which discharges as Outfall 013. Outfall 201 was discharging at the time of inspection. The inspectors could not see the status of the discharge (oil sheen, grease, turbidity, foam or color) due to darkness in the discharge manhole...***Photos 32-44.***

(c) Outfalls 202 and 203

Both Outfalls 202 and 203 receive blow down discharges from cooling towers/units 15 and 16, respectively, which are then conveyed to Outfall013 . The flows from 202 and 203 are estimated using a valve rating system, according to facility representatives. Outfalls 202 and 203 discharge only when the facility is discarding the cooling water because of high conductivity. Each tower has a pump house for cooling (river) water where pH adjustment can also be made, if necessary. Samples for Outfalls 202 and 203 are collected from the cooling tower sumps. The discharge from the towers' sumps at this time appeared to have some turbidity. ***Photos 45-54***

(d) Outfall 013

Outfall 013 is the facility's largest outfall. It is a 54" pipe that discharges a combined stream of both process wastewater and stormwater. The permit regulates the various discharges originating from 2 oil/water separators, non-contact cooling water, cooling tower blow down, basin cleaning wastes from two cooling towers, and stormwater from several locations within the facility. The flow from Outfall 013 is estimated from the summation of the process outfalls and stormwater runoff calculated using rainfall data and runoff coefficients for the various sections of the facility. This approach appears to be consistent with Part I. B. of the permit.

The outfall discharges into a wetland, a few hundred feet from the Anacostia River. Although there were no onsite stormwater discharges on the date of the inspection, there, possibly could have been groundwater seepage into Outfall 013. Otherwise, the flow sources discharging to Outfall 013 were from the power plant (NAES) related outfalls: oil/water separator, cooling tower blow down and cooling water. There were no PEPCO discharges from the site either from their oil/water separator (003) or storm water. ***Photos 28,29,30,31.***

It was not possible to distinguish any plume as the discharge end of the Outfall 013 pipe was partially submerged due to the tide which backed up the wetland water pool into the pipe several feet. This made it difficult to determine if the brownish colored water was due to the outfall's effluent as discharged, the wetland's silt stirred up by the discharge and/or residual silty river water that the tide may have previously left in the wetland water pool. ***Photos 81-87***

(e) Outfall 101

Outfall 101 discharges stormwater to the Anacostia River, and is located near the facility's river water intake point. It conveys runoff from the transformer area on the west side of the power plant building. As noted above, the facility has essentially completed their compliance schedule to allow representative sampling for Outfall 101 since Manhole K, its original monitoring location, has often been impacted by high tides from the Anacostia River. Since there was no stormwater runoff to the source inlets at this time, there was no Outfall 101discharge to the river except for possible groundwater seepage into the storm drain system. ***Photos 1-25***

9. Spill Over from Cooling Towers

Similar to the DDOE inspectors' observations during the 2010 CEI. The inspectors observed water splashing from the cooling towers onto the ground. Runoff flowing along the perimeter/chain link fence inside the facility appeared to have been the result of the splashing cooling water. This runoff was observed entering an onsite stormwater inlet near the property perimeter fence and appeared to have previously flowed off the property into a nearby city MS4 stormwater inlet.
Photos 26,27,52,88,89,90

Findings/ *Followup*

- Industrial spill - Water from the cooling towers splashed onto the ground and flowed into stormwater inlets./ *PEPCO/NAES had reportedly* (see **Attachment 2**) *repaired leaks, installed wooden splash guards and angled boards as well as adjusted louvers to contain and redirect splashing cooling water into the cooling tower's basin.*
- Improper/Incorrect Reporting - Rainfall data associated with stormwater sampling @ Outfall 013 had not been included with the DMRs (Part II. A. 1., 2. & 3.)./ *PEPCO/NAES did, however, have this rainfall data readily available in their files and provided it to the inspectors during their records review* (see **Attachment 3**). *This data included the omitted DMR data that had been required since their permit reissuance (6/19/09) to date of the subject CEI (7/28/11). PEPCO/NAES indicated that they would now report this data with their DMRs.*

Attachments

1. Water Compliance Inspection Report (EPA Form 3560-3, pages 2, 3, 4, 5)
2. PEPCO/EPA-FIP Email correspondence, photos, etc. addressing cooling tower spill remediation
3. Storm Water Result Recording Data (9/26/09 – 4/12/11)
4. Photo Log

Attachment 1

	PERMIT NO. DC0000094
SECTIONS F THRU L: COMPLETE ON ALL INSPECTIONS, AS APPROPRIATE. N/A = NOT APPLICABLE	

SECTION F - FACILITY AND PERMIT BACKGROUND

ADDRESS OF PERMITTEE IF DIFFERENT FROM FACILITY (Including City, County and ZIP code)	**DATE OF LAST PREVIOUS INVESTIGATION BY EPA/STATE**
Same	August 4, 2010 DDOE
	FINDINGS Industrial spill (water from the cooling towers spills over and flows into city MS4 stormwater lines). 2 Numeric effluent violations (Sample results exceeded permit effluent limits).

SECTION G - RECORDS AND REPORTS

RECORDS AND REPORTS MAINTAINED AS REQUIRED BY PERMIT. DETAILS:	X YES	___ NO	___ N/A (Further explanation attached X)
(a) ADEQUATE RECORDS MAINTAINED OF:			
(i) SAMPLING DATE, TIME, EXACT LOCATION	X YES	_ NO	_ N/A
(ii) ANALYSES DATES, TIMES	X YES	_ NO	_ N/A
(iii) INDIVIDUAL PERFORMING ANALYSIS	X YES	_ NO	_ N/A
(iv) ANALYTICAL METHODS/TECHNIQUES USED	X YES	_ NO	_ N/A
(v) ANALYTICAL RESULTS (e.g., consistent with self-monitoring report data)	X YES	_ NO	_ N/A
(b) MONITORING RECORDS (e.g., flow, pH, D.O., etc.) MAINTAINED FOR A MINIMUM OF THREE YEARS INCLUDING ALL ORIGINAL STRIP CHART RECORDINGS (e.g., continuous monitoring instrumentation, calibration and maintenance records).	X YES	_ NO	_ N/A
(c) LAB EQUIPMENT CALIBRATION AND MAINTENANCE RECORDS KEPT.	X YES	_ NO	_ N/A
(d) FACILITY OPERATING RECORDS KEPT INCLUDING LOGS FOR EACH TREATMENT UNIT.	X YES	_ NO	_ N/A
(e) QUALITY ASSURANCE RECORDS KEPT.	X YES	_ NO	_ N/A
(f) RECORDS MAINTAINED OF MAJOR CONTRIBUTING INDUSTRIES (and their compliance status) USING PUBLICLY OWNED TREATMENT WORKS.	_ YES	_ NO	X N/A

SECTION H - PERMIT VERIFICATION

INSPECTION OBSERVATIONS VERIFY THE PERMIT. DETAILS:	X YES	___ NO	___ N/A (Further explanation attached X)
(a) CORRECT NAME AND MAILING ADDRESS OF PERMITTEE.	X YES	_ NO	_ N/A
(b) FACILITY IS AS DESCRIBED IN PERMIT.	X YES	_ NO	_ N/A
(c) PRINCIPAL PRODUCT(S) AND PRODUCTION RATES CONFORM WITH THOSE SET FORTH IN PERMIT APPLICATION.	X YES	_ NO	_ N/A
(d) TREATMENT PROCESSES ARE AS DESCRIBED IN PERMIT APPLICATION.	X YES	_ NO	_ N/A
(e) NOTIFICATION GIVEN TO EPA/STATE OF NEW, DIFFERENT OR INCREASED DISCHARGES	_ YES	_ NO	X N/A
(f) ACCURATE RECORDS OF RAW WATER VOLUME MAINTAINED. **(Including recycled)**	X YES	_ NO	_ N/A
(g) NUMBER AND LOCATION OF DISCHARGE POINTS ARE AS DESCRIBED IN PERMIT.	X YES	_ NO	_ N/A
(h) CORRECT NAME AND LOCATION OF RECEIVING WATERS.	X YES	_ NO	_ N/A
(i) ALL DISCHARGES ARE PERMITTED.	X YES	_ NO	_ N/A

Comments:

	PERMIT NO. DC0000094

SECTION I - OPERATION AND MAINTENANCE

TREATMENT FACILITY PROPERLY OPERATED AND MAINTAINED. __X__ YES ____ NO ____ N/A (Further explanation attached ___X___)
DETAILS: **New oil/water separator in service at Outfall 201. Same oil/water separator, settling tanks and filters remain operable as noted during past CEIs @ 003.**

(a) STANDBY POWER OR OTHER EQUIVALENT PROVISIONS PROVIDED.	_X_ YES	_ NO	_ N/A
(b) ADEQUATE ALARM SYSTEM FOR POWER OR EQUIPMENT FAILURES AVAILABLE.	_X_ YES	_ NO	_ N/A
(c) REPORTS ON ALTERNATE SOURCE OF POWER SENT TO EPA/STATE AS REQUIRED BY PERMIT.	_ YES	_ NO	_X_ N/A
(d) SLUDGES AND SOLIDS ADEQUATELY DISPOSED. **Once per year by Triambirate, Inc.**	_X_ YES	_ NO	_ N/A
(e) ALL TREATMENT UNITS IN SERVICE.	_X_ YES	_ NO	_ N/A
(f) CONSULTING ENGINEER RETAINED OR AVAILABLE FOR CONSULTATION ON OPERATION AND MAINTENANCE PROBLEMS. **Mostly in-house staff**	_X_ YES	_ NO	_ N/A
(g) QUALIFIED OPERATING STAFF PROVIDED.	_X_ YES	_ NO	_ N/A
(h) ESTABLISHED PROCEDURES AVAILABLE FOR TRAINING NEW OPERATORS. **Training manual, on-job training**	_X_ YES	_ NO	_ N/A
(i) FILES MAINTAINED ON SPARE PARTS INVENTORY, MAJOR EQUIPMENT SPECIFICATIONS, AND PARTS AND EQUIPMENT SUPPLIERS.	_X_ YES	_ NO	_ N/A
(j) INSTRUCTIONS FILES KEPT FOR OPERATION AND MAINTENANCE OF EACH ITEM OF MAJOR EQUIPMENT.	_X_ YES	_ NO	_ N/A
(k) OPERATION AND MAINTENANCE MANUAL MAINTAINED. **SOPs for preventive maintenance (e.g. O/W separator)**	_X_ YES	_ NO	_ N/A
(l) SPCC PLAN AVAILABLE. **Integrated Contingency Plan (ICP)**	_X_ YES	_ NO	_ N/A
(m) REGULATORY AGENCY NOTIFIED OF BY-PASSING. (Dates _____)	_ YES	_ NO	_X_ N/A
(n) ANY BY-PASSING SINCE LAST INSPECTION.	_ YES	_ NO	_X_ N/A
(o) ANY HYDRAULIC AND/OR ORGANIC OVERLOADS EXPERIENCED.	_ YES	_X_ NO	_ N/A

SECTION J - COMPLIANCE SCHEDULES

PERMITTEE IS MEETING COMPLIANCE SCHEDULE. __X__ YES ____ NO ____ N/A (Further explanation attached ___X___)

CHECK APPROPRIATE PHASE(S):

___ (a) THE PERMITTEE HAS OBTAINED THE NECESSARY APPROVALS FROM THE APPROPRIATE AUTHORITIES TO BEGIN CONSTRUCTION.

___ (b) PROPER ARRANGEMENT HAS BEEN MADE FOR FINANCING (mortgage commitments, grants, etc.).

___ (c) CONTRACTS FOR ENGINEERING SERVICES HAVE BEEN EXECUTED.

___ (d) DESIGN PLANS AND SPECIFICATIONS HAVE BEEN COMPLETED.

___ (e) CONSTRUCTION HAS COMMENCED.

___ (f) CONSTRUCTION AND/OR EQUIPMENT ACQUISITION IS ON SCHEDULE.

___ (g) CONSTRUCTION HAS BEEN COMPLETED.

__*__ (h) START-UP HAS COMMENCED.

___ (i) THE PERMITTEE HAS REQUESTED AN EXTENSION OF TIME.

Comments:

* **Manhole K/outfall 101 stormwater sampling procedure has been established and equipment is in place (stormwater collection pans in 7 contributing inlets on west side of power plant building). Facility is ready and waiting for a qualifying storm.**

SECTION K - SELF-MONITORING PROGRAM

PART 1 - FLOW MEASUREMENT (Further explanation attached __X__)
PERMITTEE FLOW MEASUREMENT MEETS THE REQUIREMENTS AND INTENT OF THE PERMIT. X YES _ NO _ N/A
DETAILS:

(a) PRIMARY MEASURING DEVICE PROPERLY INSTALLED. X YES _ NO _ N/A

TYPE OF DEVICE _ WEIR _PARSHALL FLUME _MAGMETER _VENTURI METER X OTHER (Specify **Totalizer (~water meter) @ 003 and 201. Other outfalls have various estimating procedures)**

(b) CALIBRATION FREQUENCY ADEQUATE. (Date of last calibration **Outfalls 003 & 201 meters do not need calibration.** ___YES _ NO X N/A

(c) PRIMARY FLOW MEASURING DEVICE PROPERLY OPERATED AND MAINTAINED. X YES _ NO _ N/A

(d) SECONDARY INSTRUMENTS (totalizers, recorders, etc.) PROPERLY OPERATED AND MAINTAINED. _ YES _ NO X N/A

(e) FLOW MEASUREMENT EQUIPMENT ADEQUATE TO HANDLE EXPECTED RANGES OF FLOW RATES. X YES _ NO _ N/A

PART 2 - SAMPLING (Further explanation attached __X__)
PERMITTEE SAMPLING MEETS THE REQUIREMENTS AND INTENT OF THE PERMIT. X YES _ NO _ N/A
DETAILS: **Pepco and NAES collect all samples and analyze pH and Cl_2 on site. They send remaining samples to Contract Lab.**

(a) LOCATIONS ADEQUATE FOR REPRESENTATIVE SAMPLES. X YES _ NO _ N/A

(b) PARAMETERS AND SAMPLING FREQUENCY AGREE WITH PERMIT. X YES _ NO _ N/A

(c) PERMITTEE IS USING METHOD OF SAMPLE COLLECTION REQUIRED BY PERMIT. X YES _ NO _ N/A
IF NO, __ GRAB __ MANUAL COMPOSITE __ AUTOMATIC COMPOSITE __ FREQUENCY

(d) SAMPLE COLLECTION PROCEDURES ARE ADEQUATE. X YES _ NO _ N/A

(i) SAMPLES REFRIGERATED DURING COMPOSITING __YES _ NO X N/A

(ii) PROPER PRESERVATION TECHNIQUES USED X YES _ NO _ N/A

(iii) FLOW PROPORTIONED SAMPLES OBTAINED WHERE REQUIRED BY PERMIT _YES _ NO X N/A

(iv) SAMPLE HOLDING TIMES PRIOR TO ANALYSES IN CONFORMANCE WITH 40 CFR 136.3 X YES _ NO _ N/A

(e) MONITORING AND ANALYSES BEING PERFORMED MORE FREQUENTLY THAN REQUIRED BY PERMIT. __ YES X NO _ N/A

(f) IF (e) IS YES, RESULTS ARE REPORTED IN PERMITTEE'S SELF-MONITORING REPORT. _ YES _ NO X N/A

PART 3 - LABORATORY (Further explanation attached __X__)
PERMITTEE LABORATORY PROCEDURES MEET THE REQUIREMENTS AND INTENT OF THE PERMIT. X YES _ NO _ N/A
DETAILS: **Contract Lab was not visited during subject CEI.**

(a) EPA APPROVED ANALYTICAL TESTING PROCEDURES USED. (40 CFR 136.3) X YES _ NO _ N/A

(b) IF ALTERNATE ANALYTICAL PROCEDURES ARE USED, PROPER APPROVAL HAS BEEN OBTAINED. _ YES _ NO X N/A

(c) PARAMETERS OTHER THAN THOSE REQUIRED BY THE PERMIT ARE ANALYZED. _ YES X NO _ N/A

(d) SATISFACTORY CALIBRATION AND MAINTENANCE OF INSTRUMENTS AND EQUIPMENT. **Onsite labs** X YES _ NO _ N/A

(e) QUALITY CONTROL PROCEDURES USED. **By Contract Lab** X YES _ NO _ N/A

(f) DUPLICATE SAMPLES ARE ANALYZED **10% (TSS); 5% (O&G)** OF TIME. X YES _ NO _ N/A

(g) SPIKED SAMPLES ARE USED _____% OF TIME. _ YES _ NO X N/A

(h) COMMERCIAL LABORATORY USED. **O&G, TSS, Metals, PCBs** X YES _ NO _ N/A

(i) COMMERCIAL LABORATORY STATE CERTIFIED. X YES _ NO _ N/A

LAB NAME: **Microbac Laboratories, Inc.** (Lab picks up samples at PEPCO site).
LAB ADDRESS: **Baltimore Division, 2101 Van Deman Street, Baltimore, MD 21224. Tel. 410-633-1800/6553**

Comments:

PERMIT NO. **DC0000094**

SECTION L - EFFLUENT/RECEIVING WATER OBSERVATIONS (Further explanation attached ___X___)

OUTFALL NO.	OIL SHEEN	GREASE	TURBIDITY	VISIBLE FOAM	VISIBLE FLOAT SOLIDS	COLOR	OTHER
101	*	*	*	*	*	*	
013	**None**	**None**	**	**None**	**None**	**	
201	***	***	***	***	None	***	
202 & 203	**None**	**None**	**Some**	**None**	**None**	**None**	
003	**No discharge flow @ 003.**						

* At Outfall 101, the inspectors could not see the receiving waters because the outfall was under tall thick grass. Unless groundwater had infiltrated the storm drain system, there should have been no flow since no stormwater had entered the inlets on this dry day.

At Outfall 013, no plume in the river's wetlands could be distinguished due to the brownish pool of water where 013 discharged. Turbulence from the effluent flow was apparent but the river's tidal effects caused a partially submerged discharge making it difficult to discern the actual discharge flow from the receiving waters with regard to turbidity and/or color. **Photos 81 – 87

*** Outfall 201 was discharging at the time of inspection. The inspectors could not see the status of the discharge (oil sheen, grease, turbidity, foam or color) due to darkness in the discharge manhole,

(Sections M and N: Complete as appropriate for sampling inspections)

SECTION M - SAMPLING INSPECTION PROCEDURES AND OBSERVATIONS (Further explanation attached _____) **No samples were taken**

_ GRAB SAMPLES OBTAINED

_ COMPOSITE OBTAINED

_ FLOW PROPORTIONED SAMPLE

_ AUTOMATIC SAMPLER USED

_ SAMPLE SPLIT WITH PERMITTEE

_ CHAIN OF CUSTODY EMPLOYED

_ SAMPLE OBTAINED FROM FACILITY=S SAMPLING DEVICE

COMPOSITING FREQUENCY _____ PRESERVATION _____.

SAMPLE REFRIGERATED DURING COMPOSITING: _ YES _ NO

SAMPLE REPRESENTATIVE OF VOLUME AND NATURE OF DISCHARGE

SECTION N - ANALYTICAL RESULTS (Attach report if necessary) **No samples were taken.**

Attachment 2

Re: Follow up - Benning Generation Station NPDES Inspection
Charles Hufnagel to: fmahvi 08/08/2011 03:19 PM
Cc: adion.chinkuyu

Hi Fariba,
I'll include this info in the CEI report as well as any updates there may be, before the report is completed.
Thank you,
Chuck Hufnagel

fmahvi Hello Adion and Charles - After your July 28, 20... 08/08/2011 02:29:24 PM

From: fmahvi@pepco.com
To: adion.chinkuyu@dc.gov, Charles Hufnagel/ESC/R3/USEPA/US@EPA
Cc: heather.macdonald@naes.com, wlmcnealy@pepco.com, michael.barge@naes.com, mwilliams@pepcoenery.com
Date: 08/08/2011 02:29 PM
Subject: Follow up - Benning Generation Station NPDES Inspection

Hello Adion and Charles -

After your July 28, 2011 NPDES inspection at Benning, the Generating Station addressed your concern about the standing water along the fence line resulting from the operation of cooling tower # 15. The cooling tower came offline on Saturday July 30 and was inspected to determine how to remedy the louvers and water leaks. As a result of the inspection, the Plant implemented the following corrective actions:

- Installed plywood beams around the leaking area right above the basin wall, and caulked the beams in place to create a tight seal
- Installed angled boards near the corner of cooling tower basin to redirect any small flow leaks back into the basin
- Adjusted and repaired louvers near where leaks were observed.

The implementation of the above steps are shown in the attached photos taken at the site. The effectiveness of these steps will be evaluated once the cooling tower is placed back in service and if needed, additional steps will be taken to resolve this issue.

Please let me know if you need additional information.

Regards,

Fariba Mahvi
Environmental Services
Pepco Holdings, Inc.
Office: (202) 331-6641
Cell: (202) 345-7647